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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,852	01/07/2002	Michael T. Prikas	YOR920010705US1	6571

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EXAMINER

MARKOFF, ALEXANDER

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,852

Applicant(s)

PRIKAS ET AL

Examiner

Alexander Markoff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. It is noted that the instant claims are directed to distinct invention, which could be properly restricted. No restriction requirement is made this time because the same prior art applied to both inventions. However, the applicants are advised that if the claims would be amended to put a serious burden on the examiner in the examining both inventions together a requirement could be made.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 5-9, 14, 15, 17, 19-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshitani et al (US Patent NO 5,975,098).

Yoshitani et al teach a method as claimed. See entire document, especially Figures 2a, 5, 6, 11, 13, 17, 18, 20, 21, 22 and the related description. As to the cavitation and the shockwaves: the cavitation, which is disclosed by the document, is disclosed only for some of the embodiments and is produced only by action of a high-

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pressure jet, not by the ultrasonic jet. Thereby it is clear that the ultrasonic spray does not cause any cavitation, and accordingly shockwaves, which produced by cavitation.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 2, 4, 11, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshitani et al

Yoshitani et al teach the claimed invention except for the specifically claimed power density. However, because the document teaches the same megasonic frequency as used by the instant application and because no cavitation occurs in the megasonic jet it is clear that the claimed power density is inside the range, which is used by Yoshitani et al. The applied power of the cleaning jet is a result effective variable in the cleaning. It would have been obvious to an ordinary artisan at the time the invention was made to find an optimum value of the result effective variable in the method and apparatus of the prior art by routine experimentation in order to enhance the cleaning.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshitani et al as applied to claim 2 above, and further in view of Thrasher et al (US Patent No 5,745,946).

Yoshitani et al do not specifically teach the use of a conveyor belt. They teach the use of rollers and other transporting devices.

Thrasher et al teach that the use of belt conveyors was conventional in the art and teach them as analogs of the devices disclosed by Yoshitani et al. See at least, column 1, line 65 – column 2, line 2.

It would have been obvious to an ordinary artisan at the time the invention was made to use a belt conveyor for it's conventional purpose in the method of Yoshitani et

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al because Thrasher et al teach this device and the ones disclosed by Yoshitani et al as analogs, which are conventionally used for the same purpose.

9. Claim 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshitani et al as applied to claim 2 above, and further in view of Busnaina (US2001/0013355).

Yoshitani et al do not specifically teach cleaning of the specific article claimed.

Busnaina teaches part [0002] that the same megasonic cleaning methods are conventionally applied for the claimed articles and the articles specifically disclosed by Yoshitani et al. It would have been obvious to an ordinary artisan at the time the invention was made to clean the articles disclosed by Busnaina by the method of Yoshitani et al with reasonable expectation of success because Busnaina teaches that this articles can be cleaned by the same methods as the articles disclosed by Yoshitani et al.

10. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshitani et al in view of Thrasher et al as applied to claim 10 above, and further in view of Busnaina (US2001/0013355).

Yoshitani et al modified by the teaching of Thrasher et al do not specifically teach cleaning of the specific article claimed.

Busnaina teaches part [0002] that the same megasonic cleaning methods are conventionally applied for the claimed articles and the articles specifically disclosed by Yoshitani et al. It would have been obvious to an ordinary artisan at the time the

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invention was made to clean the articles disclosed by Busnaina by the modified method of Yoshitani et al with reasonable expectation of success because Busnaina teaches that this articles can be cleaned by the same methods as the articles disclosed by Yoshitani et al.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 6,003,527, 6,497,240 and 6,619,301 are cited to show the state of the prior art with respect to megasonic cleaning methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander Markoff
Primary Examiner
Art Unit 1746

am

ALEXANDER MARKOFF
PRIMARY EXAMINER